Claim Amendments:

1. (currently amended) A method of signaling messages between a mobile station and a base transceiver station in a telecommunications network using a control channel in air-interface for carrying information in blocks, wherein each block contains the carried information and a first error correction/detection code having a first number of bits, said method comprising ~~the steps of~~:

substituting the first error correction/detection code in the block with a second error detection code having a second number of bits smaller than the first number for obtaining a shortened block having a plurality of available bits for transmission; and

placing further bits into at least part of the available bits, wherein the further bits are indicative of the messages to be signaled between the mobile station and the base station.

2. (currently amended) The method of claim 1, further comprising ~~the step of~~:

applying a convolutional code to the shortened block for obtaining a coded shortened block prior to placing the further bits into the available bits.

3. (currently amended) The method of claim 2, further comprising ~~the steps of~~:

inserting a plurality of dummy bits into at least part of the available bits in the coded shortened block in pre-defined bit locations for obtaining a modified coded block;

rearranging the bits in the modified coded block in an interleaving manner for obtaining an interleaved block containing the dummy bits in further bit locations determinable from the pre-defined bit locations; and

replacing the dummy bits in the interleaved block with the further bits.

4. (original) The method of claim 3, wherein the control channel comprises a slow associated control channel (SACCH).

5. (original) The method of claim 4, wherein the interleaved block is partitioned into a plurality of further blocks, and each further block is mapped onto a SACCH burst containing

a plurality of stealing flags, and wherein the dummy bits always have the same positions within each SACCH burst.

6. (original) The method of claim 2, wherein the convolutional code is a ½ convolutional code.

7. (original) The method of claim 6, wherein the convolutional code has a constraint length of 7 bits.

8. (original) The method of claim 1, wherein the first error correction/detection code is a FIRE code and the second error detection code is a cyclic redundancy check (CRC) code.

9. (original) The method of claim 1, wherein the second number of bits ranges from 12 to 30.

10. (original) The method of claim 1, wherein the messages include a fast power control signal.

11. (currently amended) The method of claim 5, further comprising ~~the step of~~ puncturing one or more bits in the SACCH burst for conveying the messages.

12. (original) The method of claim 5, wherein the stealing flags are unused, and the unused stealing flags in the SACCH burst can be used for conveying the messages.

13. (currently amended) The method of claim 2, further comprising ~~the step of~~ adjusting the length of the shortened block with tail bits prior to [[the]] said applying [[step]].

14. (currently amended) The method of claim 7, further comprising ~~the step of~~ adjusting the length of the coded shortened block to accommodate the constraint length prior to the inserting step.

15. (original) The method of claim 3, wherein the SACCH block containing the carried information and the first error correction/detection code also contains a plurality of tail bits, resulting in a first total number of bits, and wherein the modified coded block contains a second total number of bits equal to the first total number.

16. (currently amended) The method of claim 3, wherein the convolutional code is a ½ convolutional code having a constraint length, said method further comprising ~~the steps of~~:

adjusting the length of the shortened block with tail bits prior to [[the]] said applying [[step]]; and

adjusting the coded shortened block to accommodate the constraint length prior to [[the]] said inserting [[step]], and wherein the SACCH block contains the carried information, the first error correction/detection code, and further contains a plurality of further tail bits, resulting in a first total number of bits, and wherein the modified coded block contains a second total number of bits equal to the first total number.

17. (original) The method of claim 15, wherein an interleaver is used to rearrange the SACCH block having the first total number of bits for transmission, and said interleaver is also used to rearrange the modified coded block for transmission.

18. (original) The method of claim 16, wherein an interleaver is used to rearrange the SACCH block having the first total number of bits for transmission, and said interleaver is also used to rearrange the modified coded block for transmission.

19. (currently amended) A method of signaling messages between a mobile station and a base transceiver station in a telecommunications network using a slow associated control channel (SACCH) for carrying information in blocks, wherein each block contains the carried information and a first error correction/detection code having a first number of bits, said method comprising ~~the step of~~:

replacing the first error correction/detection code in the block with a second error detection code having a second number of bits smaller than the first number for obtaining a shortened block;

applying a convolutional code to the shortened block for obtaining a coded shortened block;

inserting a plurality of dummy bits into the coded shortened block in pre-defined bit locations for obtaining a modified coded block;

rearranging the bits in the modified coded block in an interleaving manner for obtaining an interleaved block containing the dummy bits in further bit locations determinable from the pre-defined bit locations; and

replacing the dummy bits in the interleaved block with bits indicative of the messages to be signaled between the mobile station and the base station.

20. (currently amended) The method of claim 19, wherein the convolutional code has a contraint length, said method further comprises ~~the step of~~ adjusting the length of the shortened block with tail bits prior to [[the]] said applying [[step]] and adjusting the coded shortened block based on the constraint length prior to [[the]] said inserting [[step]].

21. (original) An apparatus for signaling messages between a mobile station and a base transceiver station in a telecommunications network using a control channel in air-interface for carrying information in blocks, wherein each block contains the carried information and a first error correction/detection code having a first number of bits, said apparatus comprising:

means for substituting the first error correction/detection code in the block with a second error detection code having a second number of bits smaller than the first number for obtaining a shortened block having a length;

means for adjusting the length of the shortened block with tail bits for obtaining a modified shortened block;

means for applying a convolutional code to the modified shortened block for obtaining a coded shortened block;

means for inserting a plurality of dummy bits into the coded shortened block in pre-defined bit locations for obtaining a modified coded block;

means for rearranging the bits in the modified coded block in an interleaving manner for obtaining an interleaved block containing the dummy bits in further bit locations determinable from the pre-defined bit locations; and

means for replacing the dummy bits in the interleaved block with bits indicative of the messages to be signaled between the mobile station and the base station.

22. (original) The apparatus of claim 21, further comprising means for adjusting the length of the coded shortened block with further bits prior to inserting the dummy bits into said coded shortened block.

23. (original) The apparatus of claim 21, wherein the control channel is a slow associated control channel (SACCH).